

Amendments to the Specification:

Please replace the table on page 49 with the following amended table:

PANEL 7 PCR PRIMER SEQUENCES		SEQ. ID NO.
221499-UP	tttcacaatt attatatcag cgaagaac	73
221499-LO	ttgatataat taacaaagta cctgaggat	74
89446-UP	tttgataaga taaattgaat tgcaatc	75
89446-LO	ccaggaaatt atcattcagg aaga	76
229291-LO	ctaactgggc atttcaaaat aagct	77
229291-UP	catctcgtaa agaaaaaac acatc	78
83031-LO	cagattaygc tgaatcatgt aactg	79
83031-UP	tctggccagc attccagc	80
226119-LO	tctaaattga gtcaagatat agaggctttc	81
226119-UP	gaactgacat taataatcaa tgtacttaca	82
60409-UP	tgcaggtgca atgtttatta gtc	83
60409-LO	gtatgggaaa cttaatcttg tatagtaact t	84
220990-UP	acagtaatga gtatagctgt aaattagtta tg	85
220990-LO	aatatgtttt agattcagat ttataatttc c	86
63527-UP	taccactggt tctccttttc tttct	87
63527-LO	atttgcccta ggattgagct aac	88
230299-LO	tgcaatttgt tttcacgtat tcg	89
230299-UP	cacaggcctg gaaaggata	90
58040-LO	ygaaaggaaa acctagagag agatt	91
58040-UP	gaaacagaaa ggcgcaaaga	92
231480-UP	ctaataattta gagagcagca aggac	93
231480-LO	cttcttcacc cttttccca	94
62059-UP	tgataagcta caagttcaaa tataactaac	95
62059-LO	gacatagagc cagattctac cagg	96
		97
PANEL 7 SNP PRIMER SEQUENCES		SEQ. ID NO.
221449	acgcacgtcc acggtgattt tatcagcgxag aacacttcag ttgtaa	98 <u>97</u>
89446	ggatggcggt ccgtcctatt tgcaatcattt tctgaagttt cttta	99 <u>98</u>
229291	cgtgccgctc gtgatagaat aaaacxcac atagcaatct gtgaata	100 <u>99</u>
83031	agcgatctgc gagaccgtat attccagcxa agctttactt ttgataa	101 <u>100</u>
226119	gcggtagggt cccgacatat taataatcaat xtacxtacat aatata	102 <u>101</u>
60409	ggctatgatt cgcaatgctt tgttttattagc tcgttttatct tcca	103 <u>102</u>

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220990	aggggtctcta cgctgacgat atagctgtaaa ttagtxatga tataac	104 <u>103</u>
63527	gtgattctgt acgtgtcgcc actgtttcctc ctttctttct ctct	105 <u>104</u>
230299	gacctgggtg tcgataccta aggcctggaa agggaxattg tgagata	106 <u>105</u>
58040	agatagagtc gatgccagct agcgccaaag aacagagtag aacaa	106
62059	agagcgagtg acgcatacta tacaaxttca aatatactaa actattc	108 <u>107</u>
231480	cgactgtagg tgcgtaactc atttagagag cagcaaxgac attcctc	109 <u>108</u>

Please replace the table on page 50 with the following amended table:

PANEL 8 PCR PRIMER SEQUENCES		SEQ. ID NO.
56763-UP	cgaattttg tgtaggcagc ct	110 <u>109</u>
56763-LO	tctacagag gtagatagaa ttgaatagaa g	111 <u>110</u>
61955-UP	tacctctac ttcctttctt atattactct t	112 <u>111</u>
61955-LO	gtggatgca ggtcacttat tttg	113 <u>112</u>
204593-UP	cacagaatg tgcacagaga ttgac	114 <u>113</u>
204593-LO	gacattgta catgatgctg cttag	115 <u>114</u>
65068-UP	ctggaattc ttccttctag gtgta	116 <u>115</u>
65068-LO	cttccttaa ggctacactt atatattaa	117 <u>116</u>
114977-UP	tgtactaa gtctcagatc aattctg	118 <u>117</u>
114977-LO	caataatat gtgtttgtta gatcaataca g	119 <u>118</u>
148193-LO	tggctcaca cctgtaatcc c	120 <u>119</u>
148193-UP	catgagttt tgtgagggtta ttcc	121 <u>120</u>
66158-UP	cttacagat aagagaatag aataacaaat tac	122 <u>121</u>
66158-LO	gaactgttg tgatattgtg gaaaga	123 <u>122</u>
69003-UP	aaaatacct ttaacaccta tttagtgtc	124 <u>123</u>
69003-LO	ggaaacatt ttgtaaaaaa tcaagta	125 <u>124</u>
63811-UP	tcctaaacc aatcccagg	126 <u>125</u>
63811-LO	gctcctcct attacctgca aat	127 <u>126</u>
860850-UP	catgcatcc gtccatggg	128 <u>127</u>
860850-LO	atttctga atgactgtgt cca	129 <u>128</u>
63189-UP	atccgtcca tgggccact	130 <u>129</u>
63189-LO	gctatttcc tgaatgactg tgtcc	131 <u>130</u>
126922-UP	gtgctttga taagactgtg atcatcac	132 <u>131</u>
126922-LO	gctgcatgg gtccatttgt	133 <u>132</u>

PANEL 8 SNP PRIMER SEQUENCES		SEQ. ID NO.
61955	acgcacgtcc acggtgattt ctctcttct tatattactc ttttc	134 <u>133</u>
65068	ggatggcggt cgtcctatt ttcttcttc taggtgtxta tctatac	135 <u>134</u>
114977	cgtgccgtc gtgatagaat taagttxax atcaatxctg agaaaga	136 <u>135</u>
148193	agcgatctgc gagaccgat gagggatttc cccaaaxctc tgtgttt	137 <u>136</u>
66158	gcggtaggtt cccgacatat gagaatagaa taacaaxtta cttga	138 <u>137</u>
56763	ggctatgatt cgcaatgctt ttgtgtaggc agccttttag ctctt	139 <u>138</u>
69003	agggtctcta cgctgacgat ataccttaa xacctattta gtgtctt	140 <u>139</u>
63811	gtgattctgt acgtgtcgcc aatcccaggg gattxcaggg ttgca	141 <u>140</u>
860850	gacctgggtg tcgataccta tccgtccatg gxccacxgc cgagaca	142 <u>141</u>

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63189	agatagagtc gatgccagct tccgtccatg gxccacxgc cgagaca	143 <u>142</u>
126922	agagcgagtg acgcatacta tgtgatcatc acagcaggac agtat	144 <u>143</u>
204593	cgactgtagg tgcgtaactc gaatgtgcac agagattgac tccac	145 <u>144</u>

Please replace the table on page 51 with the following amended table:

PANEL 9 PCR PRIMER SEQUENCES		SEQ. ID NO.
56593-UP	cagagtggag agtcacaaaa tgg	146 <u>145</u>
56593-LO	aatcccttga cactggataa cca	147 <u>146</u>
217856-UP	cctctttctc tctcctgac tgtctat	148 <u>147</u>
217856-LO	gatggggtgt gaatatgtat acaga	149 <u>148</u>
231735-UP	ctctattatt tataaagggc agaatgag	150 <u>149</u>
231735-LO	gcctgtctgt atctctctcc ttc	151 <u>150</u>
81917-UP	gctctttcat ctgatgccat ga	152 <u>151</u>
81917-LO	gatataggag taatctgaca gcagg	153 <u>152</u>
62684-UP	taacacaaag aaagtatgct tttgca	154 <u>153</u>
62684-UP	gtatgtgat gaaaatctcg cac	155 <u>154</u>
241554-UP	gtgataataa aatttttgtg cctga	156 <u>155</u>
241554-LO	catttgtttc acctgtgttc ttaata	157 <u>156</u>
126264-UP	ggataatgtt ctccgtaagg tttatac	158 <u>157</u>
126264-LO	gagaaacaag cttgccctta acta	159 <u>158</u>
224922-UP	caaggaaaac ttacataatc acagc	160 <u>159</u>
224922-LO	gaaatataaa agctccacaa atagga	161 <u>160</u>
81081-UP	aaagtaggca atactgaaga gtcatac	162 <u>161</u>
81081-LO	gttcaattgg cttggaagtt atacc	163 <u>162</u>
66561-LO	acttgattt accctcattg atg	164 <u>163</u>
66561-UP	cttctctttt ggtttctgct tttaat	165 <u>164</u>
63799-UP	gtgccagct ccctaatttc t	166 <u>165</u>
63799-LO	ctcttgtgac tttcattaac tatcttca	167 <u>166</u>
119770-UP	agcctggctg gaaatgaag	168 <u>167</u>
119770-LO	cttctaccct cctgtacctg attta	169 <u>168</u>

PANEL 9 SNP PRIMER SEQUENCES		SEQ. ID NO.
56593	acgcacgtcc acggtgattt tggagagtca caaaatgxcc cttatta	170 <u>169</u>
217856	ggatggcgtt ccgtcctatt tttctctctc ctxatctgtc tatcaaa	171 <u>170</u>
231735	cgtgccgctc gtgatagaat tttataaagg gcagaatgag gatta	172 <u>171</u>
81917	agcgatctgc gagaccgtat tcatctgatg ccatgagaaa gc	173 <u>172</u>
62684	gcggtagggt cccgacatat agaaagtatx cxttxgcaaa aggtcca	174 <u>173</u>
241554	ggctatgatt cgcaatgctt taataaaatt tttgtgcxtg aggtata	175 <u>174</u>
126264	agggtctcta cgctgacgat ttctccgtaa ggtttctaca ttgacta	176 <u>175</u>
224922	gtgattctgt acgtgtcgcc cataatcaca gcttttttct cccaa	177 <u>176</u>
81081	gacctgggtg tcgataccta taggcaatac tgaagagtca taaaa	178 <u>177</u>

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66561	agatagagtc gatgccagct gxttctgctx ttaatacaaa accag	179 <u>178</u>
63799	agagcgagtg acgcatacta agctcxctaa tttcttgatg gg	180 <u>179</u>
119770	cgactgtagg tgcgtaactc tggctggaaa tgaaggaaag gaaag	181 <u>180</u>

Please replace the table on page 52 with the following amended table:

PANEL 10 PCR PRIMER SEQUENCES		SEQ. ID NO.
63836-LO	ctctggtgcc cgacagc	182 <u>181</u>
63836-up	gcatcaggct gcctttcct	183 <u>182</u>
58091-UP	ctttttctct ctctctttct tccc	184 <u>183</u>
58091-LO	gctcatttat tatggtagac aatcc	185 <u>184</u>
68909-UP	gagtgttgga gaagagagac cttc	186 <u>185</u>
68909-LO	gctatgtgga cagacccatc tg	187 <u>186</u>
238155-UP	ggtaactgat ggcaagaggt aact	188 <u>187</u>
238155-LO	aaacttacta ttggataga gtgcttt	189 <u>188</u>
201688-LO	ctgtgagcca ggcattcttg	190 <u>189</u>
201688-UP	caagtaacct ggctctctg agat	191 <u>190</u>
57849-UP	gctggaccaa ctcccagtg	192 <u>191</u>
57849-LO	gtgaatatct ctctttctc tggg	193 <u>192</u>
56915-UP	cctcgggtgc ttctctatca taa	194 <u>193</u>
56915-LO	cttgtcagga gtcaacagct tc	195 <u>194</u>
56608-LO	aggttgagtc tccccctg	196 <u>195</u>
56608-UP	gtggagccaa ctgggagga	197 <u>196</u>
68532-UP	cttttctcaa ctactgttg tgaca	198 <u>197</u>
68532-LO	ccatttggt gtaggcg	199 <u>198</u>
61500-UP	ttgccagtg tgtattttta tctca	200 <u>199</u>
61500-LO	taacttaagc ccaccagtac atact	201 <u>200</u>
66026-UP	cccattttta gaggaaagg ctg	202 <u>201</u>
66026-LO	taagtctccc aagggtgata catg	203 <u>202</u>
60676-UP	gattcaagg gatataata attagaat	204 <u>203</u>
60676-LO	caagttcata ttctctctt gttctc	205 <u>204</u>

PANEL 10 SNP PRIMER SEQUENCES		SEQ. ID NO.
63836	acgcacgtcc acggtgattt caggctgct ttctccagg gtcca	206 <u>205</u>
60676	ggatggcggt cgcctctatt tatattaaat tagaatgtg acctc	207 <u>206</u>
58091	cgtgccgctc gtgatagaat cxtctcttt ctcccatag ag	208 <u>207</u>
68909	agcgatctgc gagaccgat tgttxgag agagacctc cattcat	209 <u>208</u>
238155	gcggtagggt cccgacatat atggcaagag gtaactcaat ca	210 <u>209</u>
201688	ggctatgatt cgcaatgctt ctctctgaga ttcagtttxc acacctg	211 <u>210</u>
57849	agggtctcta cgctgacgat ctggaccaac xcxcagtga gagggta	212 <u>211</u>
56915	gtgattctgt acgtgtcgcc ctctctatc ataagcaca tg	213 <u>212</u>
56608	gacctgggtg tcgataccta caactgggag gagggaaatg agaac	214 <u>213</u>
68532	agatagagtc gatgccagct ttgtgacaac aatacaccaa gtacc	215 <u>214</u>

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61500	agagcgagtg acgcatacta gtgtatTTTT atctcattta tccca	216 <u>215</u>
66026	cgactgtagg tgcgtaactc ccatttttag agtgaaaggc tgctc	217 <u>216</u>

Please replace the table on page 53 with the following amended table:

PANEL 11 PCR PRIMER SEQUENCES		SEQ. ID NO.
212605-UP	gcctgcttcc cctttatcct	218 <u>217</u>
212605-LO	tcttatctcc catcttcctc tacac	219 <u>218</u>
220875-UP	ctggcaatct gggcacc	220 <u>219</u>
220875-LO	cccaagtcca cacacaaatt at	221 <u>220</u>
65882-UP	gtatactaaa gagtctaagt ttttgcctaa	222 <u>221</u>
65882-LO	cttcctttt tccttcctt	223 <u>222</u>
57575-UP	tgaatagtct ttggtctgag cct	224 <u>223</u>
57575-LO	aggcagagtc ttatctggga ca	225 <u>224</u>
66683-UP	cagagaattg gaggtagctg g	226 <u>225</u>
66683-LO	aggaggtagc agtcacactg attc	227 <u>226</u>
214674-UP	gacttccgat tgtgaggctg	228 <u>227</u>
214674-LO	cctcctttta ttcttgcctc tagc	229 <u>228</u>
248007-UP	agctcactgg atgcaagagt agt	230 <u>229</u>
248007-LO	caagtggata agatgaccca ttc	231 <u>230</u>
63804-UP	gatatacagg ggaacgggc t	232 <u>231</u>
63804-LO	cctcaggggg gcactttac	233 <u>232</u>
56144-UP	tcaatctttt gatgatgtcc taaga	234 <u>233</u>
56144-LO	ttcagcacag tattctagta ttttgtg	235 <u>234</u>
233357-UP	cgttactgtc ttcttaccct tcag	236 <u>235</u>
233357-LO	ggaagtcatt ctaggctatt ttaa	237 <u>236</u>
206538-UP	agggtcgggg gttctgc	238 <u>237</u>
206538-LO	ctacagccta gggacagcca g	239 <u>238</u>
60188-UP	aggatgcatg catgctgg	240 <u>239</u>
60188-LO	ctcagagtat gtgccattgattg	241 <u>240</u>

PANEL 11 SNP PRIMER SEQUENCES		SEQ. ID NO.
212605	acgcacgtcc acggtgattt ttcccttta tcctcttcgc agcct	242 <u>241</u>
220875	ggatggcggt ccgtcctatt atctgggxc caggcagggtg gtcaggc	243 <u>242</u>
65882	cgtgccgtc gtgatagaat agtctaagtx tttgcctaaa agcagga	244 <u>243</u>
57575	agcgatctgc gagaccgtat tgaatagtct ttggtctgag cctggaa	245 <u>244</u>
66683	gcggtaggtt ccgacatat agagaattgg agttggctgg agata	246 <u>245</u>
214674	ggctatgatt cgcaatgctt ccgattgtga ggctgctgag aaggg	247 <u>246</u>
248007	agggctctta cgctgacgat aagagtagtt ggggaaagg gctgt	248 <u>247</u>
63804	gtgattctgt acgtgtcgcc atacagggga aacxggxtcc gagcaga	249 <u>248</u>
56144	gacctgggtg tcgataccta tgatgatgtc ctaxgaaata atgactt	250 <u>249</u>

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233357	agatagagtc gatgccagct ccttcagaag aactcacaaa atacc	251 <u>250</u>
60188	agagcgagtg acgcatacta gatgcatgca tgctgxcxtt gaggaac	252 <u>251</u>
206538	cgactgtagg tgcgtaactc agggtcgggg gttctxcxtg ttcattct	253 <u>252</u>

Please replace the table on page 54 with the following amended table:

PANEL 12 PCR PRIMER SEQUENCES		SEQ. ID NO.
56593-UP	cagagtggag agtcacaaaa tgg	254 <u>253</u>
56593-LO	aatcccttga cactggataa cca	255 <u>254</u>
217856-UP	cctctttctc tctcctgac tgtctat	256 <u>255</u>
217856-LO	gatggggtgt gaatatgtat acaga	257 <u>256</u>
231735-UP	ctctattatt tataaagggc agaattgag	258 <u>257</u>
231735-LO	gcctgtctgt atctctctcc ttc	259 <u>258</u>
81917-UP	acttagcttg gttctttgtt ttctaattaa c	260 <u>259</u>
81917-LO	atggaaaggc agatatagga gtaatct	261 <u>260</u>
62684-UP	taacacaaag aaagtatgct tttgca	262 <u>261</u>
62684-UP	gtatgtggat gaaaatctcg cac	263 <u>262</u>
241554-UP	gtgataataa aatttttgtg cctga	264 <u>263</u>
241554-LO	catttggttc acctgtgttc ttaata	265 <u>264</u>
126264-UP	ggataatgtt ctccgtaagg tttatac	266 <u>265</u>
126264-LO	gagaaacaag cttgccctta acta	267 <u>266</u>
230299-LO	tgcaatttgt tttcacgtat tgc	268 <u>267</u>
230299-UP	cacaggcctg gaaagggata	269 <u>268</u>
224922-UP	caaggaaaac ttacataatc acagc	270 <u>269</u>
224922-LO	gaaatataaa agctccacaa atagga	271 <u>270</u>
66561-LO	acttggttt accctcattg atg	272 <u>271</u>
66561-UP	cttctcttt ggtttctgct tttaat	273 <u>272</u>
63799-UP	gtgccagct ccctaatttc t	274 <u>273</u>
63799-LO	ctcttgtagc ttcatatac tatcttca	275 <u>274</u>
119770-UP	agcctggctg gaaatgaag	276 <u>275</u>
119770-LO	cttctaccct cctgtacctg attta	277 <u>276</u>

PANEL 12 SNP PRIMER SEQUENCES		SEQ. ID NO.
56593	acgcacgtcc acggtgattt tggagagtca caaaatgxcc cttatta	278 <u>277</u>
217856	ggatggcggt cgcctctatt tttctctctc ctxatctgtc tatcaaa	279 <u>278</u>
231735	cgtgccgctc gtgatagaat ttataaagg gcagaatgag gatta	280 <u>279</u>
81917	agcgatctgc gagaccgtat tcctctgatg ccatgagaaa gc	281 <u>280</u>
62684	gcggtaggtt cccgacatat agaaagtatx cxttxgcaaa aggtcca	282 <u>281</u>
241554	ggctatgatt cgcaatgctt taataaaatt tttgtgcxtg aggtata	283 <u>282</u>
126264	aggggtctcta cgctgacgat ttctccgtaa ggtttctaca ttgacta	284 <u>283</u>

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224922	gtgattctgt acgtgtcgcc cataatcaca gcttttttct cccaa	285 <u>284</u>
230299	gacctgggtg tcgataccta aggctggaa agggaxattg tgagata	286 <u>285</u>
66561	agatagagtc gatgccagct gxttctgctx ttaatacaaa accag	287 <u>286</u>
63799	agagcgagtg acgcatacta agctcxctaa tttcttgatg gg	288 <u>287</u>
119770	cgactgtagg tgcgtaactc tggctggaaa tgaaggaaag gaaag	289 <u>288</u>

Please replace page 55 with the following amended table:

PANEL 13 PCR PRIMER SEQUENCES		SEQ. ID NO.
63836-UP	gcatacaggct gcctttcct	290 <u>289</u>
63836-LO	ctctgggtgcc cgacagc	291 <u>290</u>
220875-UP	ctggcaatct gggcacc	292 <u>291</u>
220875-LO	cccaagtcca cacacaaatt at	293 <u>292</u>
58091-UP	aatacttcat ctctgggggc a	294 <u>293</u>
58091-LO	gctcatttat tatggtagac aatcc	295 <u>294</u>
68909-UP	gagtgttggg aagagagacc ttc	296 <u>295</u>
68909-LO	gctatgtgga cagacccatc tg	297 <u>296</u>
238155-UP	ggtacttgat ggcaagaggt aact	298 <u>297</u>
238155-LO	aaacttacta tttggataga gtgcttt	299 <u>298</u>
201688-UP	caagtaacct ggctctctg agat	300 <u>299</u>
201688-LO	ctgtgagcca ggcatctctg	301 <u>300</u>
57849-UP	gctggaccaa ctcccagtg	302 <u>301</u>
57849-LO	gtgaatatct ctcccttctc tggg	303 <u>302</u>
56915-UP	cctcggttgc ttctctatca taa	304 <u>303</u>
56915-LO	cttgtcagga gtcaacagct tc	305 <u>304</u>
56608-UP	gtggagccaa ctgggagga	306 <u>305</u>
56608-LO	aggttgagtc tccccgtg	307 <u>306</u>
68532-UP	cttttctcaa ctactgttg tgaca	308 <u>307</u>
68532-LO	ccatttggtg gtaggcgg	309 <u>308</u>
62059-UP	tgataagcta caagtcaaa tatactaaac	310 <u>309</u>
62059-LO	gacatagagc cagattctac cagg	311 <u>310</u>
66026-UP	cccattttta gagtgaaagg ctg	312 <u>311</u>
66026-LO	taagtctccc aagtgagata catg	313 <u>312</u>

PANEL 13 SNP PRIMER SEQUENCES		SEQ. ID NO.
63836	acgcacgtcc acggtgattt caggetgcct ttctccagg gtcca	314 <u>313</u>
220875	ggatggcggt cgcctctatt atctgggcxc caggcaggtg gtcaggc	315 <u>314</u>
58091	cgtgccgctc gtgatagaat cxctctcttt ctcccatag ag	316 <u>315</u>
68909	agcgatctgc gagaccgtat tgttxgag agagacctc cattcat	317 <u>316</u>
238155	gcggtaggtt cccgacatat atggcaagag gtaactcaat ca	318 <u>317</u>
201688	ggctatgatt cgcaatgctt ctctctgaga ttcagtttxc acacctg	319 <u>318</u>
57849	agggctctcta cgctgacgat ctggaccaac xcxcagtgga gagggta	320 <u>319</u>
56915	gtgattctgt acgtgtcgcc cttctctatc ataagcaca tg	321 <u>320</u>
56608	gacctgggtg tcgataccta caactgggag gagggaaatg agaac	322 <u>321</u>

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68532	agatagagtc gatgccagct ttgtgacaac aatacaccaa gtacc	323 <u>322</u>
62059	agagcgagtg acgcatacta tacaaxttca aatatactaa actattc	324 <u>323</u>
66026	cgactgtagg tgcgtaactc ccatttttag agtgaaaggc tgctc	325 <u>324</u>

Please replace the table on page 56 with the following amended table:

PANEL 14 PCR PRIMER SEQUENCES		SEQ. ID NO.
		326
76268-UP	ctgtttcatt tcagcccttt tag	327 <u>325</u>
76268-LO	gttatcctta gtgagttttc tgtctaca	328 <u>326</u>
70371-UP	gcgtcatatg gagcctcct	329 <u>327</u>
70371-LO	ctcatctggc cttctgtgtc c	330 <u>328</u>
58388-UP	ctgcagttca ggtggctgtt	331 <u>329</u>
58388-LO	cctcgtctcc aagggtgtct	332 <u>330</u>
105677-UP	agccattaga cctgccaatc	333 <u>331</u>
105677-LO	aatgcagagg ccaccagc	334 <u>332</u>
226119-UP	gaactgacat taataatcaa tgtacttaca	335 <u>333</u>
226119-LO	tctaaattga gtcaagatat agaggctttc	336 <u>334</u>
63184-UP	ctcaagcact ctctcttttc atca	337 <u>335</u>
63184-LO	ggagtccagg tagataggaa cactag	338 <u>336</u>
63979-UP	gtgatacacg aaggcagatg at	339 <u>337</u>
63979-LO	gactgtgaat gtacttagcc ccc	340 <u>338</u>
130240-UP	caacaggaag cgaggcc	341 <u>339</u>
130240-LO	acaaggcagg accaaggc	342 <u>340</u>
182622-UP	gggcttgtgt gtccacaga	343 <u>341</u>
182622-LO	tgtgtcagga agaagaagat caac	344 <u>342</u>
66567-UP	ctgaacccaa gaacttcttg at	345 <u>343</u>
66567-LO	tgatgagtat ataaccagaa ggaacac	346 <u>344</u>
89614-UP	agcagaggat ggcagtcacc	347 <u>345</u>
89614-LO	cacctctgtt cctgttttct gtta	348 <u>346</u>
219561-UP	cagtactatc tcttctttaa agatctgaaa	349 <u>347</u>
219561-LO	accagctca agatgctctg	350 <u>348</u>

PANEL 14 SNP PRIMER SEQUENCES		SEQ. ID NO.
76268	acgcacgtcc acggtgattt ttaggtatag ttgattgttt taaga	351 <u>349</u>
70371RT	ggatggcggt cgcctctatt gcgtcatatg xagcctxctg ggacaag	352 <u>350</u>
58388	cgtgccgctc gtgatagaat ttcagggtggc tgtttcagag ctgag	353 <u>351</u>
105677	agcgatctgc gagaccgat cxattagacc tgccaatcxc ctggaga	354 <u>352</u>
226119	gcggtagggt cccgacatat taataatcaa txtacxtaca taatata	355 <u>353</u>
63184	ggctatgatt cgcaatgctt cactctctct tttcatcact catct	356 <u>354</u>
63979	agggtctcta cgctgacgat cacgaaxgca gatxatxacg gtcgcct	357 <u>355</u>
130240	gtgattctgt acgtgtcgcc gaagcgaggc cxcagggtcaa ggtggga	358 <u>356</u>

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182622	gacctgggtg tcgataccta tgtgtcxaca gacagtggcg ggcttca	359 <u>357</u>
66567	agatagagtc gatgccagct caagaactxc ctgatatggg aatcaaa	360 <u>358</u>
89614	agagcgagtg acgcatacta cagtcaccct cagagcccag aa	361 <u>359</u>
219561	cgactgtagg tgcgtaactc tgaaagtaga accaatcaag gctcc	362 <u>360</u>

Please replace the table on page 57 with the following amended table:

PANEL 15 PCR PRIMER SEQUENCES		SEQ. ID NO.
216327-UP	cagtgggctc tatttttttc taactt	363 <u>361</u>
216327-LO	tggctctctca gctatggcct t	364 <u>362</u>
248075-UP	gatcaaaaaa gcatgagttc ttatta	365 <u>363</u>
248075-LO	cctcactaat ggtgacacaa caag	366 <u>364</u>
85187-UP	cccaggcaat taatgagtct g	367 <u>365</u>
85187-LO	gtttatatat taggaacttt taggggag	368 <u>366</u>
225225-UP	ctagacctaa atagtggccc taaat	369 <u>367</u>
225225-LO	ctctactgaa gacaaactta gaggaatg	370 <u>368</u>
82031-UP	ttgacatctt cttagattct aaaatcac	371 <u>369</u>
82031-LO	ctggttggtt ttaaggtctc c	372 <u>370</u>
60409-UP	tgcagggtgca atgtttatta gctc	373 <u>371</u>
60409-LO	gtatgggaaa cttaatcttg tatagtaact t	374 <u>372</u>
221499-UP	tttcacaatt attatatcag cgaagaac	375 <u>373</u>
221499-LO	ttgatataat taacaaagta cctgaggat	376 <u>374</u>
168115-UP	tcctgtagca ttggaaaact gt	377 <u>375</u>
168115-LO	agaaactgga gttactcttg tcaga	378 <u>376</u>
177589-UP	ctgaggaaga gtgcagcata ctc	379 <u>377</u>
177589-LO	caggcatagg gttgggatg	380 <u>378</u>
173632-UP	gactcttcat ggccaacacc	381 <u>379</u>
173632-LO	attttgccac tagtttttac atctcta	382 <u>380</u>
60188-UP	aggatgcatg catgctgg	383 <u>381</u>
60188-LO	ctcagagtat gtgccattga ttg	384 <u>382</u>
231480-UP	ctaataattta gagagcagca aggac	385 <u>383</u>
231480-LO	cttcttcacc cttttcccca	386 <u>384</u>

PANEL 15 SNP PRIMER SEQUENCES		SEQ. ID NO.
216327	acgcacgtcc acggtgattt ctattttttt ctaacttcag aattt	387 <u>385</u>
248075RT	ggatggcggt cgtctctatt gcatgagttc ttattattca ccaca	388 <u>386</u>
85187	cgtgccgctc gtgatagaat gcaattaatg agtctgxtaa accta	389 <u>387</u>
225225	agcgatctgc gagaccgtat ccctaaattt gtgttaxgcx ttcccta	390 <u>388</u>
82031	gcggtagggt cccgacatat tagattctxa aatcacttta ttcatac	391 <u>389</u>
60409	ggctatgatt cgcaatgctt tgtttattag ctcgtttatc ttcca	392 <u>390</u>
221499RT	agggtctcta cgctgacgat tatcagcgxa gaacacttca gttgtaa	393 <u>391</u>
168115	gtgattctgt acgtgtcgcc aaactgttgt tcattttctc accac	394 <u>392</u>
177589	gacctgggtg tcgataccta gtgcagcata ctcatcaca ga	395 <u>393</u>

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173632	agatagagtc gatgccagct tcatggccaa caxcaggtag tcagtat	396 <u>394</u>
60188	agagcgagtg acgcatacta gatgcatgca tgctgxcxtt gaggaac	397 <u>395</u>
231480	cgactgtagg tgcgtaactc atttagagag cagcaaxgac attcctc	398 <u>396</u>

Please replace the table on page 58 with the following amended table:

PANEL 16 PCR PRIMER SEQUENCES		SEQ. ID NO.
61955-UP	tacctctact tcctttctta tattactctt	399 <u>397</u>
61955-LO	gtggatgcag gtcacttatt ttg	400 <u>398</u>
65068-UP	ctggaattct tccttctagg tgta	401 <u>399</u>
65068-LO	cttccttaag gctacactta tatattaa	402 <u>400</u>
65882-UP	gtatactaaa gagtctaagt tttgcctaa	403 <u>401</u>
65882-LO	cttccttttt tccttcctt	404 <u>402</u>
148193-UP	catgagtttt gtgagggtat tcc	405 <u>403</u>
148193-LO	tggctcacac ctgtaatccc	406 <u>404</u>
66158-UP	cttacagata agagaataga ataacaaatt ac	407 <u>405</u>
66158-LO	gaactgttgt gatattgtgg aaaga	408 <u>406</u>
56763-UP	cgaattttgt gtaggcagcc t	409 <u>407</u>
56763-LO	tctacagagg tagatagaat tgaatagaag	410 <u>408</u>
69003-UP	aaaatacctt taacacctat ttagtgct	411 <u>409</u>
69003-LO	ggaaacattt tgtaaaaaat caagta	412 <u>410</u>
212605-UP	gcctgcttcc cctttatcct	413 <u>411</u>
212605-LO	tcttatctcc catcttcctc tacac	414 <u>412</u>
860850-UP	catgcatccg tccatggg	415 <u>413</u>
860850-LO	atttcctgaa tgactgtgtc ca	416 <u>414</u>
235106-UP	gcttttgaaa aaaaataaaa ttgc	417 <u>415</u>
235106-LO	ggaccattt atagtttttt aactttg	418 <u>416</u>
126922-UP	gtgctttgat aagactgtga tcatcac	419 <u>417</u>
126922-LO	gctgcatggg tccatttgt	420 <u>418</u>
206538-UP	agggtcgggg gttctgc	421 <u>419</u>
206538-LO	ctacagccta gggacagcca g	422 <u>420</u>

PANEL 16 SNP PRIMER SEQUENCES		SEQ. ID NO.
61955	acgcacgtcc acggtgattt cttcctttct tatattactc ttttc	423 <u>421</u>
65068	ggatggcggt ccgtcctatt ttcttccttc taggtgtxta tctatac	424 <u>422</u>
65882	cgtgccgctc gtgatagaat agtctaagtx ttgcctaaa agcagga	425 <u>423</u>
148193	agcgatctgc gagaccgtat gagggtatcc ccaaaxctc tgtgttt	426 <u>424</u>
66158	gcggtagggt cccgacatat gagaatagaa taacaaxtta cttga	427 <u>425</u>
56763	ggctatgatt cgcaatgctt ttgtgtaggc agccttttag ctctt	428 <u>426</u>
69003	agggctctca cgctgacgat atacctttta xacctattta gtgtctt	429 <u>427</u>
212605RT	gtgattctgt acgtgtcgcc ttccccttta tcctcttcgc agcct	430 <u>428</u>

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860850	gacctgggtg tcgataccta tccgtccatg gxccacxcgc cgagaca	431 <u>429</u>
235106	agatagagtc gatgccagct axaaataxaa ttgcttttga atactga	432 <u>430</u>
126922	agagcgagtg acgcatacta tgtgatcatc acagcaggac agtat	433 <u>431</u>
206538	cgactgtagg tgcgtaactc agggtcgggg gttctxcxtg ttcattct	434 <u>432</u>

Please replace the table on page 59 with the following amended table:

PANEL 17 PCR PRIMER SEQUENCES		SEQ. ID. NO.
228468-UP	cctactttca gatcctgagt cttgt	435 <u>433</u>
228468-LO	gcctctggtg ttatttagac tcc	436 <u>434</u>
214674-UP	gacttccgat tgtgaggctg	437 <u>435</u>
214674-LO	cctcctttta ttcttgetca tagc	438 <u>436</u>
126243-UP	ccagtgtttg aatgccgct	439 <u>437</u>
126243-LO	gaagcggagg tttcagcag	440 <u>438</u>
207160-UP	tgaatgaatt aacaaagtca tggag	441 <u>439</u>
207160-LO	ctctgcccc attccaac	442 <u>440</u>
66683-UP	cagagaattg gagttggctgg	443 <u>441</u>
66683-LO	aggaggtagc agtcacactgattc	444 <u>442</u>
211324-UP	tgccacacag tttggagtga	445 <u>443</u>
211324-LO	cattcaatgg gggagatgg	446 <u>444</u>
214373-UP	ctggcaggca agagatgtga	447 <u>445</u>
214373-LO	gactggaaag gaacaaagag gtg	448 <u>446</u>
234217-UP	acagtcattt gtacttacgg agcg	449 <u>447</u>
234217-LO	gagcctgcct caacgagaag	450 <u>448</u>
63404-UP	aggggctarg tttggagaag ag	451 <u>449</u>
63404-LO	aatgcaaaga ccacatctat caat	452 <u>450</u>
72171-UP	cacctgacct ccagcaagag	453 <u>451</u>
72171-LO	ggtgtgtccc tgttgttagt gg	454 <u>452</u>
Amel-2-short-UP	ccagataaag tggtttctca agtg	455 <u>453</u>
Amel-2-short-LO	gggaagctgg tggttagaac	456 <u>454</u>

PANEL 17 SNP PRIMER SEQUENCES		SEQ. ID NO.
228468	acgcacgtcc acggtgattt tctgagtct tgttttgacc catga	457 <u>455</u>
214674RT	ggatggcggt cgcctctatt ccgattgtga ggctgctgag aaggg	458 <u>456</u>
126243	cgtgccgctc gtgatagaat aatgccgctg tgagacaaag gg	459 <u>457</u>
207160	agcgatctgc gagaccgtat aacaaagtca tggagaaatc aactc	460 <u>458</u>
66683	gcggtagggt cccgacatat agagaattgg agttggctgg agata	461 <u>459</u>
211324	ggctatgatt cgcaatgctt tttgccacac agttxggagt gacccaa	462 <u>460</u>
214373RT	agggtctcta cgctgacgat ggcaagagat gtgacaggca agagt	463 <u>461</u>
234217	gacctgggtg tcgataccta acttacggag cgctctttgt gagaa	464 <u>462</u>
63404	agatagagtc gatgccagct rgtttgagaga xgagcctacr tcttaac	465 <u>463</u>
72171	cgactgtagg tgcgtaactc tcxaxcaaga ggaatxcaag aatgcta	466 <u>464</u>
Amel-2U8	gtgattctgt acgtgtcgcc gataaagtgg tttctcaagt ggtcc	467 <u>465</u>

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Please insert the enclosed paper copy of the sequence listing into the application immediately following page 69.